

VENIAMIN, Gh., ing.; STOICULESCU, E., ing.

Considerations on the purification of residual waters in
the wood industry. Hidrotehnica 6 no. 8:286-290 Ag '61.

VENIAMIN, Gh., ing.; PAUN, C., ing.

Concomitantly: sliding pillars and walls, and raising metallic roofs. Constr Buc 17 no.801:1 15 My '65.

1. Enterprise for Construction of Thermal Power Stations,
Bucharest.

VENIAMINOV, N.

Important stage in the development of the Soviet budget law.
Fin. SSSR 22 no.7:25-33 J1. '61. (MIRA 14:7)
(Budget)

VENIAMINOV, N.
25611

Voprosy Normi o-Vaniya Sobstvennykh Oborotnykh Sredstv V Mashinostroeni.
Sov. Finansy, 1948, No. 6, s. 22-25.

SO: LETOPIS NO. 30, 1948

VENIAMINOV, N.

25611. VENIAMINOV, N.

Voprosy Normirovaniya sobstvennykh oborotnykh sredstv v mashinostroenii. Sov. Finansy, 1948, No. 6, s. 22-25.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

VENIAMINOV, V.

Rock bumps at the "Tsentrul'naia" Mine. Bezop. truda v prom.
8 no.9:18-19 S :64 (MERA 18:1)

1. BACHURIN, A., VENIAMINOV, N.

2. USSR (630)

4. Budget

7. Shortcomings of a textbook on the U.S.S.R. national budget ("U.S.S.R. national budget." N. H. Kovinskii. Reviewed by A. Bachurin, N. Veniaminov). Vop. ekon. no. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Unclassified.

VENIAMINOV, N.

VENIAMINOV, N.; OBOLENSKIY, N.

Problems in financial and budget planning. Fin. SSSR 18 no.12:
10-17 D '57. (MIRA 11:1)
(Finance)

1. VENIAMINOV, N., OBLENSKIY, N.

2. USSR (600)

4. Local Finance

7. Budgets of the union republics in the service of the peoples of the U. S. S. R.
Fin. kred. SSSR no. 2 1953

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

VENIAMINOV, V.; LEONOVA, T.S., red.; RAKITIN, I.T., tekhn. red.

[Secret of crop yields] Sekret urozhaia. Moskva, Izd-vo
"Znanie," 1963. 31 p. (Novoe v zhizni, nauke, tekhnike.
V Seria: Sel'skoe khoziaistvo, no.16) (MIRA 16:8)
(Field crops)

L 36832-66 EWP(c)/EWP(k)/EWT(d)/EWT(l)/T/EWP(l)/EWP(v) IJP(o) T3

ACC NR: AP5022956

(A)

SOURCE CODE: UR/0317/65/000/002/0052/0057

AUTHOR: Artemov, A. (Engineer, Lieutenant Commander); Veniaminov, Yu. (Engineer, Colonel); Kunakov, A. (Engineer, Captain); Gertsov, V. (Lieutenant Colonel)

ORG: none

TITLE: How to increase operational reliability ¹⁴ ₇₅

42

B

SOURCE: Tekhnika i vooruzheniye, no. 2, 1965, 52-57

TOPIC TAGS: reliability engineering, radio equipment, training procedure

ABSTRACT: Methods of maintaining operational reliability of radioelectronic equipment, methods of testing, and failure detection in conjunction with the training of operators and electronic equipment specialists are discussed and deficiencies in training methods are noted. It is suggested that the operators be taught the operation of each unit of equipment and its component parts, thus greatly simplifying the timely detection of equipment failures. Training the operators in the operation and repair of equipment under simulated combat conditions is recommended. A periodic testing of electronic vacuum tubes using LI-2 (IL-14) tube testers with the mutual conductance characteristic of the electronic tubes (S) as a control parameter and subjecting them to a limit test is discussed. The use of the oscillograph for testing radio and electronic equipment and the detection of failures is also discussed. Orig. art. has: 1 figure.

SUB CODE: 4,05,09/

SUBM DATE: none

Card 1/1

VENIAMIN¹VA, Zinaida Nikolayevna; IVASHKEVICH, Irina Dmitriyevna;
MIKHALEVSKAYA, V.I., red.; MURASHOVA, V.A., tekhn. red.

[Examples of the construction of transition lines in technical
drawings] Primery postroeniia linii perekhoda v tekhnicheskikh
formakh. Moskva, Gos.izd-vo "Vysshaia shkola," 1963. 38 p.
(MIRA 16:5)

(Mechanical drawing)

VENIDIKTOV, A., inzh.

Automatic control of shaft locks in VTI-15 and VTI-8 grain driers.
Mik.-elev. prom. 26 no.6:18-19 Je '60. (MIRA 13:12)
(Grain---Drying)

VENIG, P.N.

Work pictures at the Vyborg Interdistrict Children's Hospital.
Pediatria 38 no.12:74-75 '60. (MIRA 14:2)

1. Iz Vyborgskoy mezhrayonnoy detskoy bol'nitsy (glavnyy vrach
P.N. Venig).

(VYBORG—CHILDREN—HOSPITALS)

RAKOVICH, M. [Rakovic, M.]; GREGORA, V.; VENIGOVA, G. [Wenigova, H.]

Excretion of chlorine ions by irradiated rats. Radiobiologia 4
no.5:782-783 '64. (MIRA 18:4)

1. Biofizicheskiy institut fakul'teta obshchey meditsiny Karlova
universiteta, Praga.

VENIKHEYEV, V. V.

Building.

Organization of trimming work in construction of a skyscraper.
Mekh. trud. rab. 6, no. 4, April 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 195~~3~~², 2 Uncl.

GOBZA, R.N., red.; GELIN, M.M., red.; KRIVOSHEYEV, B.S., red.;
SORIN, Ye.Ye., red.; VENIKEYEVICH, L.A., red.;
AVER'YANOVA, L.B., red.

[Adjusting and planning systems of industrial ventilation
and air conditioning] Naladka i proektirovanie sistem pro-
myshlennoi ventilyatsii i konditsionirovaniia vozdukha;
tematicheskii sbornik. Moskva, TSentr. biuro tekhn. infor-
matsii, 1964. 157 p. (MIFA 17:12)

1. Moscow. Proyechnyy institut "Proyektpromventilyatsiya."

VENIKOV, A. L.

KONOVALOV, P. N., Inzh. 1, VENIKOV, A. L., St. Nauchn. sotv.

Akademiya Kommunal'nogo Khozyaystav IM. K. D. Pamfilova

Pechi dliter'nogo Gorennya Akkh-9

IAkkh-11 NA Tverdom Toplivo

Page 48

SO: Collection of Annotations of Scientific Research Work on Construction, completed
in 1950. Moscow, 1951

VENIKOV, A. L.

✓
VENIKOV, A. L., St. Nauchn. Sotr. 1, KONOVALOV, P. N., Inzh., LERNER, B. N. ,
O. St. Nauchn. Sotr.

Akademiya Kommunal'nogo Khozyaystva IM. K. D. Pamfilova

Gazovyye otopitel'nyye Pechi Akkh-3, Akkh-5 I Akkh-6 Page 49

SO: Collection of Annotations of Scientific Research Work on Construction, completed
in 1950. Moscow, 1951

BC

R-14

Analysis of antifriction alloys. L. VENIKOV
(J. Chem. Ind., Russia, 1929, 6, 309—210).—The alloy is dissolved in nitric acid; the residue after repeated evaporation with nitric acid is dissolved in oxalic acid, antimony trisulphide being precipitated from the solution; tin is determined electrolytically in the filtrate. The antimony sulphide is dissolved in sodium hydroxide solution, a small residue of lead and copper sulphides being dissolved in nitric acid and added to the original solution, in which lead and copper are determined in the usual way.

CHEMICAL ABSTRACTS.

Analysis of anti-friction alloys. 1. VERNIKOV, I. *J. Chem. Ind. (Russia)* 6, 202 (1929). The method described involves a new principle but the details are somewhat different from the customary practice. The alloy is decomposed by treating with concd HNO_3 and a fairly pure residue of $\text{SnO}_2 + \text{Sb}_2\text{O}_3$ obtained after repeated evapns. with HNO_3 . The filtered residue is dissolved in oxalic acid and from the soln. Sb_2O_3 is pptd. in much the same way as in the Hertz modification of P. W. Clarke's classic method. The ppt. is dissolved in NaOH soln. and a small residue of H_2S and CuS dissolved in HNO_3 and added to the original soln. In this first soln. Pb and Cu are detd. in the usual way. In the filtrate from the Sb_2O_3 pptn., Sn is detd. by electrolysis. The final H_2S again.

BERNARD NELSON

ASB 55.4 METALLURGICAL LITERATURE CLASSIFICATION

CA

The analysis of mixtures of sulfuric and nitric acids. L. V. VIKTOROV, *Chem. Ind. (Russia)* 6, 433-4 (1920). Instead of detg. HNO_3 by the nitrometer method, and subtracting it from the total acid obtained by titration, the same sample is titrated before and after the removal of HNO_3 by volatilization. A small flask with a long wide side arm, and a ground in stopper with a glass tube reaching to the bottom, is used. When air is blown through the latter, and the flask is half submerged in boiling water, the HNO_3 is removed from a 1-g sample in 20-25 min. The side arm is then closed with a rubber stopper and bent glass tube which dips into a mixt. of diphenylamine and H_2SO_4 . Absence of HNO_3 is shown by failure to develop a blue color after 8 min. The results are as good as those obtained by the nitrometer method. THOMSON M. SWIFT

17

1st and 2nd orders

PROCESSES AND PROPERTIES

1st and 2nd orders

Work with a Lange nitrometer. L. L. VASNIKOV. *J. Chem. Ind. (Moscow)* 7, 485 (1930).—A change in the Lange nitrometer is described. By enlarging the bulb at the graduated end of the nitrometer, the center of gravity is lowered, this making it easier to shake. Very good results are obtained even if amts. of more than 0.5 g. are used for the detn., while the old type of nitrometer does not give reliable results if amts. above 0.4 g. of the substance are used.

R. GUNAWATTAN

ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION

82

ARZUMANOV, A.A.; VENIKOV, N.I.; MIRONOV, Ye.S.; NEMENOV, L.M.

Magnetic iron channel for extracting and injecting charged particles.
Atom.energ. 10 no.5 461-468 My '61. (MIRA 14:5)
(Magnetic fields)

27400

S/089/61/011/003/001/013
B102/B138

21.3100

AUTHORS: Vozikov, N. I., Golovanov, G. N. Konyayev, V. P.,
Starostin, N. V., Chumakov, N. I.

TITLE: Acceleration of He_3 to 35 Mev in the 150-cm cyclotron

PERIODICAL: Atomnaya energiya, v. 11, no. 3, 1961, 213-216

TEXT: The fact that, on the one hand, He_3 nuclei are much used as bombarding particles, while, on the other, considerable losses occur when they are accelerated in standard cyclotrons, caused the authors to develop a "return system" which was tested on the cyclotron of the Ordenu Lenina Institut atomnoy energii im. I. V. Kurchatova (Order of Lenin Institute of Atomic Energy imeni I. V. Kurchatov). A description of this system is given. Fig. 1 shows a diagram of this so-called "gas return system". The gas is pumped from a cylinder into the system by a pump that automatically controls the flow rate at regulated pressure (100-200 mm Hg). Most of the gas is evacuated by two diffusion pumps and a forepump, and after compression is again fed into the He_3 system over a

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27400

S/089/61/011/003/001/013
B102/B138

Acceleration of He_3 to 35 Mev ...

system of traps. The traps retain the various impurities contained in the gas (oil, water, nitrogen, oxygen, Hg). All possible ways are employed to reduce gas leakage and infiltration of impurities into the gas cycle. The mechanical pumps have water-cooled oil battle. This gas return system makes it possible to reduce He_3 losses to $5 \text{ cm}^3/\text{hr}$. The highest energy to which He_3 ions can be accelerated is determined by the highest attainable frequency of the resonant circuit, namely, 11.2 Mc/sec. A magnetic field strength of 11,000 oe corresponds to this frequency. On a 67-cm radius He_3^{2+} ions attain about 35 Mev. To prevent ion losses during acceleration, and during deflection from the magnetic field, focusing diaphragms are provided on the duants. The ion source is moved to a predetermined distance from the magnetic field center. Measurement of the dependence of the ion current on acceleration radius has shown that from 40 cm onwards, no more ion losses occur. A system of hyperbolic electrodes serves to deflect the ions. The ion current on a target at 12 m distance from the cyclotron has the following parameters: energy of He_3^{+2} ions: 35 Mev;

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27400

Acceleration of He_3 to 35 Mev ...

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B102/B138

energy spread: $\pm 0.3\%$; half-width of beam on target: 8 mm (horizontal) and < 8 mm (vertical); mean amperage: 30 μa . 10 μa is normally used. N. A. Vlasov and S. P. Kalinin are thanked for their interest, V. I. Lamunin and N. N. Khaldin for constructing the gas return system, N. V. Kartashov for adjusting the pulsed supply of the ion source. There are 5 figures and 4 references: 1 Soviet and 3 non-Soviet. The three references to English-language publications read as follows: H. Wegner, W. Hall. Rev. Scient. Instrum., 29, No. 12, 1100 (1958); I. Sremlin, W. Hardy, H. Shaylor. J. Scient. Instrum., 36, No. 9, 390 (1959); A. Morton, W. Smith. Nucl. Instrum. and Methods, 4, 37 (1959).

SUBMITTED: January 30, 1961

Legend to Fig. 1: (1) Central vacuum pump; (2) diffusion pump; (3) fore-pump; (4) trap for oil vapors; (5) carbon traps; (6) trap for mercury vapors; (7) mercury pressure regulator; (8) needle-valve flow regulator; (9) vacuum gauge no. 1.

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2705

S/089/61/011/003/007/013
B102/B138

21,3300

AUTHORS: Venikov, N. I., Chumakov, N. I.

TITLE: Improvement of monochromatism of the ion beam in a cyclotron

PERIODICAL: Atomnaya energiya, v. 11, no. 3, 1961, 247-249

TEXT: The energy spread of the accelerated ion beam is usually met by magnetic separation, which, however, entails the drawback of considerable losses of intensity. Focusing diaphragms attached to the duants have been successfully used in the cyclotron of the Order-Lenina Institut atomnoy energii im. I. V. Kurchatova (Order of Lenin Institute of Atomic Energy imeni I. V. Kurchatov) since 1959 to improve the monochromatism of the beam. These diaphragms resemble those described in Ref. 2 (see below). The position of slits in the diaphragms was determined by graphic solution of the equations of ion motion. The diaphragms consisted of 3 mm thick copper sheet. Small copper tubes conveying distilled water were soldered onto the diaphragms for heat abduction. Using the diaphragms it was possible to intensify focusing by about the N-fold, as compared with focusing in open duants: $N = \cos \theta_{in} / (\cos \theta_{in} - \cos \theta_{out})$. Both ions with

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Improvement of monochromatism of...

S/089/61/011/003/007/013
B*02/B138

positive and with negative phases are focused in duants with diaphragms. Strong electric focusing may lead to a considerable rise in the frequency of vertical ion oscillations, and, hence, to losses beyond the range of action of the diaphragms. This was prevented by an appropriate change of drop curve of the magnetic field. Measurements showed that ion losses appeared chiefly in radial intervals of 25-30 cm. The ionic current was constant at intervals longer than about 30 cm. The following improvements were achieved by using diaphragms:

	Ions	Energy, Mev	Coefficient of beam emergence from deflector, %	Energy spread of beam on a distant target (breadth: half height), %
Without diaphragms	d ⁺	20	30-40	± 0.8
With diaphragms	d ⁺	10	70	± 0.2
	He ²⁺	35	70	± 0.3
	d ⁺	20	70	± 0.35

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Improvement of monochromatism of...

S/089/61/011/003/007/013
B102/B138

N. A. Vlasov, S. P. Kalinin, B. V. Rybakov are thanked for their interest, and N. V. Starostin for his assistance. There are 3 figures, 1 table, and 3 references: 2 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: Ref. 2: A. Smith, W. Morton, Nucl. Instrum. and Methods, 4, 37 (1959).

SUBMITTED: March 23, 1961

X

Card 3/3

24.6730
21.3000

AUTHOR: Venikov, N. I.

TITLE: Reduction of length and repetition frequency of ion clusters
in a cyclotron

29536
S/089/61/011/005/001/017
B102/B114

PERIODICAL: Atomnaya energiya, v. 11, no. 5, 1961, 421 - 425

TEXT: Some possibilities of changing duration and repetition frequency of ion pulses in the 1.5-m cyclic deuteron accelerator (10 Mev) which is described in Ref. 1 (L. M. Nemenov et al., Atomnaya energiya, 2, 1, 36, 1957) were studied theoretically and experimentally. In order to improve the resolution of time-of-flight fast-neutron spectrometers, the ion pulses should be of minimum length but normal intensity (1-10 μ a). The pulses can be narrowed by shortening the initial phases or by proper choice of acceleration conditions. The first possibility was accomplished by using a special collimator designed for starting phases between 0 and $+10^\circ$. This range is changed during acceleration. Its change is described by $\delta = (H_0 - H_{res})/H_{res}$, %, (H_0 - central field, H_{res} - resonance field).

The change in phase of an ion in the n-th orbit is given by
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Reduction of length and...

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S/089/61/011/005/1, 17
B102/B114

$\Delta\varphi_n = -2\pi \frac{\Delta H(R_n)}{H_{res}(R_n)}$; $\Delta H(R_n)$ denotes how far the field strength exceeds the resonance value $H_{res}(R_n)$ with an orbit of radius R_n . For an ion characterized by Z and A , $R_n = \frac{0.1}{H(R_n)} \sqrt{E_n / (0.48z^2/A)}$, where $E_n = E_{n-1} + 4ZeV_o \cos\varphi_n$ is the kinetic energy. Computations showed that for a duant voltage of 95 kv values of $\delta = 0.75 - 1.2\%$ are necessary for acceleration. This result was verified by experiments. Field fluctuations of $2 \cdot 10^{-4}$ which arise in the cyclotron considered, lead to a pulse broadening of 1.5% of the h-f period. Pulse broadening on the target due to an increase of the path of flight was not more than 4% of the h-f period. This increase was caused by removing the target from the deflector; in the experiments, it was located at a distance of 12 m. For a given δ , the final ion phase difference reaches a minimum if the final ion phase from the middle of the phase interval considered is zero. This fact can be utilized to reduce the ion pulse length. The repetition frequency of the ion pulses can be reduced by electrical deflection of the

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Reduction of length and...

ions after or during acceleration. This was achieved by ion deflection from the first semiorbit, using voltage pulses of half the cyclotron frequency and 1-kv amplitudes. The central collimator was designed for starting phases between 0 and $+10^0$ with a negative potential at the control electrode of about 1 kv. This method reduces the repetition frequency in the central region of the cyclotron by 50%. This does, however, not induce such a reduction at the output since the accelerated ions leave the cyclotron after different numbers of revolutions. For the cyclotron considered, this difference may vary between 0 and 24. This effect can be avoided if the central magnetic field is somewhat higher than the resonance field (in the case considered: $\delta = 0.8\%$). Then, also the repetition frequency at the target is reduced by 50%. The author finally thanks N. A. Vlasov, S. P. Kalinin, B. V. Rybakov, and V. A. Sidorov for interest and discussions, N. I. Chumakov, V. P. Konyayev, and G.N. Golovanov for calculations, Yu. V. Korshunov, A. V. Antonov, and Ye. A. Meleshko for designing the radiotechnical equipment of the control electrode supply. There are 9 figures and 6 references: 5 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: W. Smith, A. Morton. Nucl. Instr. and Methods, 4, 37 (1959).
SUBMITTED: March 23, 1961
Card 3/3

24.6730

40048

S/089/62/013/002/001/011
B102/B104

AUTHORS: Babichev, A. P., Venikov, N. I., Knyazyatov, A. S.,
Meshcherov, R. A., Mironov, Ye. S., Nemenov, L. M.,
Fedorov, N. D., Kholmovskiy, Yu. A.

TITLE: Control of the magnetic field configuration in a cyclotron

PERIODICAL: Atomnaya energiya, v. 13, no. 2, 1962, 125-134

TEXT: Between 1956 and 1959, experiments were made with a model magnet of one-fifth the full size, made of Cr.-3 (St.-3) steel, in connection with the redesign of the 1.5-m cyclotron belonging to the Ordera Lenina Institut atomnoy energii im. I. V. Kurchatova AN SSSR (Lenin Order Institute of Atomic Energy imeni I. V. Kurchatov, AS USSR). The pole pieces were either cylindrical (370 mm diameter) or conical (300 mm diameter) and the magnet gap was 90 mm wide. The current in the windings could be kept constant to within $\pm 0.1\%$, and the field strengths were measured with an error of $\pm 0.03-0.1\%$. The following were investigated: (1) the optimum geometry of the magnet to ensure a field of constant configuration ($\Delta H/H_0(R)$ minimum when H_0 changes), the magnet having

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Control of the magnetic field ...

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cylindrical poles and three pairs of caps 14.5 mm thick of different diameters. The best results were obtained using caps with a diameter smaller than that of the poles. Measurements were made not only for $\Delta H/H_0 = f(R)$ with and without shims, but also for $\Delta H/H_0 = f(r)$, where r

is the radius of curvature of the caps. The constancy of the field configuration can be improved by replacing the caps by internal shims. (2) Correction of the magnetic field by inserting circular coils in the magnet gap between the caps. Experiments were made with six such coils, of different diameters, mounted on a brass frame. Each winding consisted of five turns of a 4 by 0.5 mm copper tube enclosing a flow of water. The field created by the coils $H_w(R)$ with current (150 a) and without current was measured by a differential method and their effect on the field configuration was studied under various conditions. Shimming seems to be the most convenient way of correcting the field. (3) Sector-type windings. These were used for generating a first harmonic and also for regulating the field. In the case of magnets with dead turns, the field of the first harmonic was measured in dependence on the radius. (4) Correction of the field by annular windings in the shimming gap. These are less effective in the shimming gap than in the magnet gap. (5) Correction of the field

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Control of the magnetic field ...

S/089/62/013/002/001/011
B102/B104

for azimuthal variation. For this purpose, only one turn (Cu tube 3 by 0.5 mm; maximum current strength 600 a), was used which had the same effect as in an axisymmetric field. There are 15 figures.

SUBMITTED: August 23, 961

Card 3/3

I 10672-63

ADMISSION NP AP/4

AUTHOR: Venkov, N. I., Kartashov, N. V.

TITLE: The effect of the basic parameters of the cyclotron¹ on the duration and the pinch phase of accelerated ions.

SOURCE: Atomnaya energiya, v. 14, no. 6, 1963, 521-524

TOPIC TAGS: stability of cyclotron parameters, pinch duration and phase

ABSTRACT: The results of measurements of the effect of parameters of the cyclotron such as the current of the main magnet, the amplitude of the voltage, frequency of the resonance circuit of the ion source, the steepness of the acceleration of the ions and the voltage at the pinch are presented. It is shown that these parameters can be varied independently of each other. The pinch phase and the duration of the pinch are determined for those parameters satisfying the requirements of the time of flight of the ions. The results of the measurements are compared with the theoretical calculations.

VENIKOV, N.I.; KARTASHOV, N.V.

Effect of the principal parameters of a cyclotron on the duration
and phase of a bunch of accelerated ions. *Atom. energ.* 14 no.6:
521-524 Je '63. (MIRA 16:7)

(Cyclotron) (Ions)

ACCESSION NR: AP4020585

S/0057/64/034/003/0530/0535

AUTHOR: Venikov, N.I.; Mironov, Ye.S.

TITLE: An approximate method for calculating the focusing properties of a system of two quadrupole magnets

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.3, 1964, 530-535

TOPIC TAGS: electron optics, quadrupole lenses, two quadrupole lens, quadrupole lens aberrations, magnetic quadrupole

ABSTRACT: A number of formulas analogous to (but more involved than) those of thin lens optics are presented for calculating the electron optical properties of a pair of (not necessarily identical) short quadrupole magnets. The use of these formulas for designing ion focusing systems is discussed, and a number of graphs are presented for facilitating the calculations. Formulas are also presented for calculating the effects of small changes in the magnet current, of misalignment of the magnets, of small changes in the magnet separation, and of chromatic aberration. The formulas presented give the magnetic field gradients required within the lenses with an error not exceeding 10% provided the lengths of the magnets do not exceed one-third

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ACCESSION NR: AP4020585

their focal lengths nor two-thirds their separation. [Abstracter's note: The formulas are said to have been derived, but no derivations are given and no references are given to other publications in which their derivation might be found.] Orig. art. has: 16 formulas and 5 figures.

ASSOCIATION: none

SUBMITTED: 07Feb63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: PH

NR REF SOV: 000

OTHER: 001

Card 2/2

ACCESSION NR: AP4018360

S/0120/64/000/001/0038/0039

AUTHOR: Venikov, N. I.

TITLE: Accelerating negative ions in the cyclotron of the Institute of Atomic Energy

SOURCE: Pribery* i tekhnika eksperimenta, no. 1, 1964, 38-39

TOPIC TAGS: negative ion, hydrogen negative ion, deuterium negative ion, Institute of Atomic Energy cyclotron, cyclotron, Institute of Atomic Energy

ABSTRACT: The 1.5-m IAE cyclotron was used for experimenting with negative ions. It was adjusted for accelerating and emitting 6-Mev protons. The dees voltage was 45 kv, the resonance strength of the principal magnetic field was 5.5 koerst, and the deflector potential was 20 kv. The proton current in the beam was 60 microamp. Then, the magnetic field of the principal and turn magnets and all correcting windings was reversed, as well as the potential of the deflector

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ACCESSION NR: AP4018360

and the electrostatic lens that ensured vertical focusing. With this new polarity, only negative hydrogen ions could be accelerated in this cyclotron and brought out and focused on a remote target. A negative ion current of 0.7 microamp was measured. These discharge parameters proved to be optimum: discharge current, 3.5 amp; discharge voltage, 150 v; reflector potential, 220 v; reflector current, 100 ma; cathode-heating current, 180 amp. Commercially-pure hydrogen was used as the working medium. The effect of the cyclotron vacuum-chamber pressure and the gas flow in the ion source upon the negative-ion current was determined (curves submitted). Some experiments with deuterium negative ions were also staged. Orig. art. has: 2 figures.

ASSOCIATION: Institut atomnoy energii (Institute of Atomic Energy)

SUBMITTED: 06Feb63

DATE ACQ: 18Mar64

ENCL: 00

SUB CODE: NS

NO REF SOV: 004

OTHER: 001

Card 2/2

ANTOKOV, A.V.; BLOKHIN, A.V.; VERNIKOV, N.I.; KALININ, S.P.; KURASHOV, A.A.;
FEROV, P.Ye.; CHELSADY, A.F.

Reducing the migration density of ion bunches in an IAE cyclotron.
Frib. i tekhn. eksp. 9 no.6:30-32 N-D '64.

(MIRA 18:3)

1. Institut atomnoy energii AN SSSR.

ANTONOV, A.V.; VASIL'YEV, P.I.; MENIKOV, N.I.; KALININ, S.I.; SOLOVYOV, N.I.;
KHALDIN, N.N.; KHOROSHAVIN, B.I.; TITUSKOV, N.I.

Adapting an IAE cyclotron to operations involving regulated ion
energy. Prib. i tekhn. eksp. 9 no.6:28-29 M-B '64.

(MIRA 18:3)

1. Institut atomnoy energii AN SSSR.

VENIKOV, N.I.; CHUMAKOV, N.I.

Application of the method of transit time in measuring the range-energy ratio for helium ions in aluminum at energies of 18 to 38 Mev. Atom. energ. 17 no.6:503 D '64 (MIRA 18:1,

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Charge exchange in oxygen ions with energies from 2 to 13.3
Mev. on thin aluminum films. Atom. energ. 17 no.6:504 D '64
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eksp. 9 no.1:38-39 Ja-F '64. (MIRA 17:4)

1. Institut atomnoy energii AN SSSR.

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AS. PANKRATOV

REPORT

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SHIL', O. D.; VENIKOV, N. I.; KURASHOV, A. A.; OGLOBLIN, A. A.; PANKRATOV, V. M.;
KOLDAKOV, B. P.

"Search for Light Neutron-Nuclei (i.e. dineutron, tetraneutron, n^6)."

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14-22 Feb 64.

Inst Atomic Energy, AS USSR

VENIKOV, N.I.; MIRONOV, Ye.S.

Approximate calculation of a focusing system of two quadrupole magnets. Zhur. tekhn. fiz. 34 no. 3 530-535 Mr '64. (MIRA 17:5)

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Simplified method of determining short circuit currents taking into account generator swing. Venikov, V. A., and Uljanov, S. A. Elektrichestvo (No. 2) 73-4 (Feb., 1946) In Russian. - Then calculating short circuit currents for purposes of relay protection and phase relations. to know the min. and max. currents, their distribution and phase relations. As the rotor position cannot be neglected, a general solution of the differential equation system is not possible. The alternative method due to Longley of numerical evaluation of successive integrals (Abstr. 2451 (1930)) is lengthy and difficult. A new, simple method is described which allows rapid calculation of altered phase angle and generator swing, providing the law of e.m.f. v. rotor angle is known. Derived curves show good agreement with Longley's results. A. L.																																																																																																																																																																																																																																																																																																																																																																																																																							
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VENIKOV, Docent V. A.

PA 3/4974

USSR/Academy of Sciences
Engineering
Power

May 48

"In the Scientific and Technical Society of the
Moscow Power Engineering Institute imeni Molotov,"
Docent V. A. Venikov, Cand Tech Sci, 1 p

"Elektrichestvo" No 5

Discusses proceedings, articles submitted for
reading, and various sessions of different branches
of subject Society.

3/4974

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50										1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50																																							
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VENIKOV, V.A. SA 536 537																																																	
536. Simplified calculation of the dynamic stability of electrical systems. VENIKOV, V. A. <i>Elektricheskoe</i> (No. 5) 53-7 (1948) In Russian—Investigates the effect of variations in the initial parameters and of inaccuracies in the fundamental assumptions upon calculations of the stability of electrical power systems in the unsteady regime. Introduces a simplified method of calculation, making use of special nomograms.																																																	
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VENIKOV, V. A.		621 315.1 : 621.3814.3	
PA 22/49T10	1137. Dynamical voltage rises on electrical transmission lines due to unsymmetrical short-circuits. ZHUKOV, P. S. AND VENIKOV, V. A. <i>Elektricheskoe</i> (No. 10) 24-30 (Oct., 1948) In Russian.—A discussion of the sudden voltage rises due to unsymmetrical short-circuits on transmission systems, based upon calculations made on equivalent ladder networks. It is shown that the greatest rise of voltage is due to 3 harmonic resonance with line-to-line or line-to-earth short-circuits; two-line short to earth is relatively safe from this point of view. For machines without damping windings the highest rise on the second phase attains 5-5.6 × rated magnitude for 3rd harmonic resonance and 3-3.5 × for the 5th harmonic. These rises may persist for some time, until the disconnection of the short-circuit. For complete generator-transformer-line systems, 3rd harmonic resonance is shown to depend upon the ratio of the generator rating and the line length, graphs of the resonance range for 220 kV and 110 kV lines being given. The most effective means for preventing voltage rise is the provision of damping windings in the alternators, especially windings with connectors between the poles.		
AND S. A. METALLURGICAL LITERATURE CLASSIFICATION		621 315.1 : 621.3814.3	
CAND. TECH SCI		Moscow Power Eng Inst imeni Molotov	

VENIKOV, V. A. Docent

USSR/Electricity

Transmission Lines
Currents, Electric - Alternating

Nov 48

"Transmission of 400-Kilovolt Alternating Current,"
Prof P. S. Zhdanov, Dr Tech Sci, Docent V. A.
Venikov, Cand Tech Sci, Docent G. M. Rozanov,
Cand Tech Sci, Moscow Power Eng Inst Imeni Molotov,
10 pp

"Elektrichestvo" No 11

Considers proper selection of transmission lines
for proposed transmission at 400 kv. Highest
voltage currently in use is 220 kv. Analyzes

27/49153

Nov 48

USSR/Electricity (Contd)

problems of grounding neutral, split conductors,
and construction and diameter of conductors in
connection with power losses in corona discharge.
Gives mechanical description of transmission lines
and operating performance and stability of trans-
mission at 400 kv.

27/49153

VENIKOV, V. A.

"Application of the Theory of Similarity and Physical Modeling in Electrical Engineering," Gosenergoizdat, 1949, 28 pp.

VENIKOV, V. A., Docent

USSR/Electricity
Generators

Jan 49

Bibliography

"In the Technological Department of the Power
Engineering Institute Imeni Molotov," Docent V. A.
Venikov, Cand Tech Sci, $\frac{1}{2}$ p

"Elektrichestvo" No 1

PA 35/49T22

Details activities of various sections of Sci Tech
Div, Moscow Power Eng Inst. Instrument-construction
section has been established within electrotechnical
section. In the radio techniques section, Yu. B.
Kobzyrev submitted a report, "The Theory of Auto-
regenerators With Two Degrees of Freedom," and in

35/49T22

USSR/Electricity (Contd)

Jan 49

the industrial electronics section, L. G. Mamikonyan
submitted a report "Self-Synchronization of Alter-
nators."

35/49T22

VENIKOV, V. A.

PA 3/50T16

USSR/Electricity - Literature
Telemetry

Jul 49

"In the Scientific and Technical Division, Moscow
Power Engineering Institute Imeni Molotov,"
Docent V. A. Venikov, Cand Tech Sci, 2 pp

"Elektricheskoy" No 7

Among several reports presented at scientific-
technical conference of this Institute during
1948 was Docent O. A. Goryainova's "Code Impulse
Device for Telemetry With a Decade Code," in which
three original forms of code impulse devices for
telemetry were described (one with polar and two
with a time code). Docent N. G. Syshlin, and
assistants I. A. Korner and Ye. N. Vtorov noted
that the Chair of Phys of this Institute built
an electronic sensitizer on a 110-kv electronic
microscope base.

3/50T16

VENIKOV, V. A.

PA 164T11

USSR/Electricity - Transmission Lines
Electric Power

Jul 50

"Characteristics of Long-Distance AC Transmission Lines," V. A. Venikov, Cand Tech Sci, Docent G. M. Rozanov, N. N. Sokolov, Engr, Moscow Power Eng Inst imeni Molotov

"Elektrichestvo" No 7, pp 8-16

Discusses basic problems in design of power-transmission lines, giving analysis of technical and economic characteristics of lines of 220, 400, and 440 kv. Describes characteristics of mechanical part of lines, calculates corona losses, and gives estimate of lightning protection capabilities.

164T11

VENIKOV V. A.

181T26

USSR/Electricity - Transmission, Power
Corona

51

"Calculation of Corona Losses on 400-KV Power Lines,"
Docent V. A. Venikov, Cand Tech Sci, D. A. Fedorov,
Engr, Moscow Power Eng Inst imeni Molotov

"Elektrichestvo" No 1, pp 10-14

Examd problem of detg corona power and energy losses
in connection with planning of long super-high volt-
age power lines. Discussion is requested of method
proposed by authors for applying experimentally ob-
tained data to the planned lines, and for detg both
av-yearly and max losses along entire line. Sub-
mitted 16 Oct 50.

181T26

VENIKOV, V. A. Docent

USSR/Electricity - Transmission
Damping

Apr 51

178168
"Effect of the Damping Moment and Damping Wind-
ings Upon the Dynamic Stability of Electric
Transmission System," Docent V. A. Venikov,
Cand Tech Sci, L. A. Zhukov, Cand Tech Sci, Mos-
cow Power Eng Inst Imeni Molotov

"Elektrichestvo" No 4, pp 7-16

Offers formulas for calcul of damping moment due
to actions of longitudinal and transverse damp-
ing windings and the exciting winding. Estab-
lished by calcul and expt that under operating co

178168

USSR/Electricity - Transmission (Contd) Apr 51

conditions characteristic for dynamic stability
calcul, effect of damping windings is consider-
ably less than that of the exciting winding. In-
fluence of latter may be decisive under opera-
ting conditions close to stability limit, espec-
ially for long-distance power transmission. Sub-
mitted 10 Oct 50. 50.

178168

VENIKOV, V. A.

"Professor A. Ya. Ryabkov," Elektrichestvo, No. 6, 1951, a biographic eulogy.
Co-authors: A. A. Glazunov, G. M. Ryabkov, N. D. Anisimova, B. A. Teleshev, V. N. Stepanov, N. A. Met'nikov, M. A. Petrov, M. V. Rogal'-Levitskiy.

PA 196T24

USSR/Electricity - Hydroelectric

Stations

Aug 51

Generators, Synchronous
Modeling

"A Synchronous Generator for Dynamic Modeling
of Electric Power Systems," Docent V. A.
Vasilev, Cand Tech Sci, A. V. Ivanov-Smolenskiy,
Cand Tech Sci, Moscow Power Eng Inst Imeni
Molotov

"Elektrichestvo" No 8, pp 19-26

Details design of model for powerful generator
and its excitation system. This model is now

196T24

USSR/Electricity - Hydroelectric

Stations (Contd)

Aug 51

being used to study operating conditions of the
Kuybyshev-Moscow and Stalingrad-Moscow trans-
mission systems. Gives practical methods for
the construction of generator models and series
compensators using small std machines. Sub-
mitted 7 Dec 50.

196T24

VENIKOV, V. A.

"Representation of Electrical Phenomena on Physical Models as Applied to Power System Design," paper presented at the XIV International Conference on Large High-Voltage Electrical Systems (CIGRE), *May-June, 1952*

Translation with diagrams available--B-54460

VENIKOV V.A.: CHILIKIN M.G.: SUKOMEL A.S.: CLOV'YEV I.I.: SIROTINSKIY L.I.:
BEL'KIND L.D.: FEDOSEYEV A.M.: GRUDINSKIY P.G.: UL'YANOV S.A.: MEDVEDEV R.P.:
SOLDATKINA L.A.: VASIL'YEV A.A.: ROZANOV G.M.: ANISIMOVA N.D.

Professor A.A.Glazunov. On his 60th Birthday and 30 year of Scientific Pedagogical
Engineering, and Society Activity. Elektrichestvo, No.1, 1952.

SO: Monthly List of Russian Accessions, Library of Congress, April 52 1953, Uncl.

VENIKOV, V. A.; SOKOLOV, N. N.

Electric Lines

Remarks on N. N. Krachkovskiy's article "Estimating the carrying capacity of an electric transmission line on the basis of natural capacity." Elektrichestvo no. 9, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

VENIKOV, V.A.

Perekhodnye protsessy v elekticheskikh
sistemakh (Switching processes in electric systems).
Moskva, Gosenergizdat. 1953. 232 p.

SO: Monthly List of Russian Accessions, Vol. 6 No. 5, August 1953

GLAZUNOV, A. A. Prof., VENIKOV, V. A. Docent

Electric Networks

Letter to the editor of the periodical "Elektrichestvo." Elektrichestvo No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

VENIKOV, DOCENT V. A.

USSR/Electricity - Transmission Lines Jul 53

"No-Load Operating Conditions of Long-Distance
Power Transmission," Docent V. A. Venikov, L. A.
Zhukov, N. D. Anisimova (All Cands Tech Sci),
Moscow Power Eng Inst in Molotov

Elektrichestvo, No 7, pp 3-16

Discusses phenomena such as instability in parallel
operation, self-excitation of generators, associated
with connecting and disconnecting long-distance
transmission line (i.e., Kuybyshev-Moscow line) with
local power system, giving phys analysis of processes

271T57

and proposing methods of calcn which were checked
by expt on dynamic model. Submitted 25 Aug 52.

KIRILLIN, V.A.; PANTYUSHIN, V.S.; SIROTINSKIY, L.I.; BEL'KIND, L.D.; FEDOSEYEV,
A.M.; UL'YANOV, S.A.; VENIKOV, V.A.; MARANCHAK, V.M.; ANISIMOVA, N.D.

Professor I.I.Solov'ev. Fiftieth anniversary of his birth. Elektrichestvo
no.10:93 0 '53. (MLRA 6:10)

(Solov'ev, Ivan Ivanovich, 1903-)

VENIKOV, V.A., kandidat tekhnicheskikh nauk.

Four hundred thousand volts. Nauka i zhizn' 20 no.4:6-9 Ap '53.

(MLBA 6:5)

(Electric power distribution)

VENIKOV, V.A., kandidat tekhnicheskikh nauk.

Making models of electric systems. Nauka i zhizn' 20 no.5:6-9 My '53.

(MLA 5:6)

(Electric power distribution)

VENIKOV, V. A.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
Venikov, V. A.	"A Dynamic Model of a	Moscow Power Engineering
Zolotarev, T. L.	Hydroelectric Power System"	Institute imeni V. M.
Ivanov-Smolenskiy, A. V.		Molotov

SO: W-30604, 7 July 1954

VENIKOV, V. A. (Dr.): MOSKVITIN, A. I.;

"Scientific Research Conducted by the Academy of Science USSR and Leading Institutions of Higher Learning on the Problems of Long-distance Transmission," paper presented at the Session of Commission for Long Distance Power Transmission in USSR--Moscow, Vestnik Akademii Nauk USSR, July 1954.

Representatives from scientific establishments of the AS USSR, the academies of the union republics, scientific research and planning organizations of the Ministry of Electric Power Stations and the Electrical Industry, and leading electrical engineering and polytechnic institutes convened in Moscow, for session of the Commission for Transmission of Electric Power Over Long Distances 8-10 March 1954.

VENIKOV, V. A.

VENIKOV, V. A.

FD 269

USSR/Electricity - Simulation

Card 1/1

Author : Venikov, V. A.

Title : Some problems of using similarity in model tests of electrical systems

Periodical : Iz. Ak. Nauk SSSR, OTN, 1, 69-79, Jan 1954

Abstract : Examines some problems of the theory of similarity and small-scale operation in application to physical (dynamic) models of electrical systems. Covers: Criteria of similarity and possibility of rejecting geometrical similarity; effect of nonlinearity of parameters in model testing; problems of accuracy of model tests; and similarity and model test of excitation systems and excitation regulators. Seven references--all since 1949.

Institution :

Submitted : January 6, 1954. Presented by Academician M. V. Kirpichev.

V. 1/14-8
CHILIKIN, M.G.; GLAZUNOV, A.A.; STEPANOV, V.N.; TELESHEV, B.A.; GRUDINSKIY,
P.G.; VENIKOV, V.A.; MEL'NIKOV, N.A.; ROGALI-LEVITSKIY, M.V.; GLAZUNOV,
A.A.; SOLDATKINA, L.A.; ZHUKOV, L.A., ANISIMOVA, N.D.

A.IA.Riabkov. Obituary. Elektrichestvo no.3:92 Mr '54. (MLRA 7:4)
(Riabkov, Aleksandr Iakovlevich, 1890-1954)

DENIRO, V.A.

the system produces
response.

B. F. KRAUS

VENIKOV, V.A.

KAZOVSKIY, Ye.Ya., kandidat tekhnicheskikh nauk.

"Transitional processes in electric power systems (Elements of theory and calculations)." V.A.Venikov, L.A.Zhukov. Reviewed by E.I.A.Kazovskii. Elektrichestvo no.4:93-95 Ap '54. (MLRA 7:5)

1. Zavod "Elektrosila" im. Kirova. (Electric circuits) (Venikov, V.A.) (Zhukov, L.A.)

VENIKOV, V.A., professor, doktor tekhnicheskikh nauk.

From authors. Elektrichstvo no.4:96 Ap '54. (MLRA 7:5)
(Electric machinery)

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859410012-0

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859410012-0"

VENIKOV, V. A.

CHILIKIN, M.G.; KOSTROV, M.F.; GLAZUNOV, A.A.; MESHKOV, V.V.; SO-
LOV'YEV, I.I.; VENIKOV, V.A.

L.I. Sirotinskii, honored worker in science and engineering.
Elektrichestvo no.6:91 Je '54. (MLRA 7:7)
(Sirotinskii, Leonid Ivanovich, 1879-)

VENIKOV, V. A.

AID P - 626

Subject : USSR/Electricity

Card 1/1 Pub. 27 -30/35

Authors : Nekrasov, A. N., Syromyatnikov, I. A., Chilikin, M. G.,
Solov'yev, I. I., Glazunov, A. A., Sirotinskiy, L. I., Ivanishchenko,
F. D., Venikov, V. A., Chetverichenko, A. N. and others.

Title : Professor A. M. Fedoseyev. On His 50th Birthday and
25 years of Scientific, Educational and Engineering
Activity. (Current News)

Periodical : Elektrichestvo, 8, 89, Ag 1954

Abstract : A short biographical sketch and a description of
scientific activity is given.

Institution : Not given

Submitted : No date

VENIKOV V.A.

BABIKOV, M.A.; VENIKOV, V.A.; DROZDOV, N.G.; PRIVEZENTSEV, V.A.; SOLOV'YEV,
I.I.; TARBYEV, B.M.; NIKULIN, E.V.

Professor S.M.Bragin. Elektrichestvo no.12:82-83 D '54. (MIRA 7:11)
(Bragin, Sergei Mikhailovich, 1894-)

VENIKOV, V. A.

AID P - 1235

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 30/34

Authors : Venikov, V. A., Doc. of Tech. Sci., Prof. and
~~Meinikov, N. A.~~, Kand. of Tech. Sci., Dotsent

Title : Kh. F. Fazylov. Theory and Methods of Calculation of
Electrical Systems. Steady State Conditions. 171 pages...
Published by the Uzbekistan SSR Academy of Sciences,
1953 (Bibliography)

Periodical : Elektrichestvo, 12, 84-85, D 1954

Abstract : The reviewers describe the book as valuable, and based on
the many years of experience of its author. They give a
detailed criticism, chapter by chapter of errors, which,
however, can be corrected in the next edition.

Institution : Moscow Institute of Power Engineering im. Molotov and
All-Union Correspondence Institute of Electrical Engineer-
ing.

Submitted : No date

VENIKOV
CHILIKIN, M.G.; GLAZUNOV, A.A.; STEPANOV, V.N.; TELESHEV, B.A.;
GRUDINSKIY, P.G.; VENIKOV, V.A.; MEL'NIKOV, N.A.;
ROGALI-LEVITSKIY, M.V.; BOZANOV, G.M.; GLAZUNOV, G.M.;
SOLDATKINA, L.A.; ZHUKOV, L.A.; ANISIMOVA, N.D.

Aleksandr Iakovlevich Riabkov; obituary. Elek.sta. 25 no.2:
59 F '54. (MLRA 7:2)
(Riabkov, Aleksandr Iakovlevich, 1890-1954)

VENIKOV, Valentin Andreyevich; professor, doktor tekhnicheskikh nauk;
MOROZ, I.I., redaktor; ISLENT'YEVA, P.G., tekhnicheskii redak-
tor.

[Long-distance transmission of electric power] Peredacha elektricheskoi energii na dal'nie rasstoianiia. Moskva, Izd-vo "Znanie," 1955. 31 p. (Vsesoiuznoe obshchestvo po rasprostraneniui politicheskikh i nauchnykh znani. Ser. 4, no. 23) (MLRA 8:9)
(Electric power distribution)

VENIKOV, V. A.

AID P - 1279

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 3/30

Authors : Venikov, V. A., Doc. of Tech. Sci., Prof., Ivanov-Smolenskiy, A. V., Kand. of Tech. Sci., Dotsent and Gorushkin, V. I., Kand. of Tech. Sci.

Title : Problem of efficiency in forcing up the generator field

Periodical : Elektrichestvo, 1, 12-19, Ja 1955

Abstract : The determination of dynamic stability with the help of a network analyzer is compared with the calculation on a mechanical computer. This helps explain several factors usually not considered, particularly the limiting capacity of long power transmission lines with forcing up of the field. The theoretical and the actual results in a simple case coincide closely. Eleven diagrams and oscillograms, 2 tables, 5 Russian references (1941-1954).

Institution : Moscow Power Engineering Institute im. Molotov; Power Engineering Institute of the Academy of Sciences, USSR.

Submitted : My 20, 1954

VENIKOV, V. A.

AID P - 1999

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 3/31

Authors : Azar'yev, D. I., Kand. of Tech. Sci., Dotsent,
Venikov, V. A., Doc. of Tech. Sci., Prof., and
~~Sokolov, N. N., Eng.~~

Title : Long-distance transmission with intermediate synchronous
condensers

Periodical : Elektrichestro, 4, 11-16, Ap 1955

Abstract : The authors emphasize the expediency of constructing
long-distance transmission lines with intermediate
substations connecting power transmission with local
distribution systems. The raising of transmitting
capacity obtained by the use of synchronous condensers
is further increased by a judicious use of the excitation
regulators and by the compensation of the condenser re-
actance with static capacitors. The self-excitation
conditions of the condensers are established with the
help of Gorev-Park equations. Twelve diagrams, 2 Russian
references (1953).

Elektrichestro, 4, 11-16, Ap 1955

AID P - 1999

Card 2/2 Pub. 27 - 3/31

Institution: Teploelektroproyekt (Trust for the Planning and Investigation of Thermal and Electric Power Plants, Networks, and Substations) and MEI (Moscow Power Engineering Institute im. Molotov).

Submitted : Ja 3, 1955

AID P - 2936

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 1/15

Authors : Venikov, V. A., Doc. of Tech. Sci., Prof., and
A. V. Ivanov-Smolenskiy, A. V., Kand. of Tech. Sci.,
Dotsent

Title : Development of physical models of electrical systems

Periodical : Elektrichestvo, 8, 1-10, Ag 1955

Abstract : The article summarizes the work in modeling of analogous systems done at the Moscow Power Engineering Institute im. Molotov. Analogies are developed by the authors on the basis of similarity of equations and then direct experimentation permits obtaining numerical results. The authors present the methods of laboratory tests with several models of electric systems, machinery, and equipment. Eight photographs, drawings, and diagrams, 10 Soviet references (1939-1955).